

## **PALM INTRANET**

Day: Sunday Date: 8/24/2003 Time: 15:02:30

Reg. New

Reg. Amended

Spl. New Spl. Amended

Rejected

Counted Not Mailed

## **Special New Cases**

(WARNING: Data Security and Confidentiality Restriction Apply)

Name: OWENS JR, HOWARD Examiner Number: 74908

Group Art Unit: 1623

Special New Cases: 14

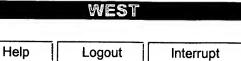
Oldest New S.N.: <u>09821103</u> Age: 04 Oldest Effective S.N.: <u>10231874</u> Age: 04

Appln #	Filing Date	Status	Loc	Chg to Loc	Class	Subclass	Type	Title
09/982315	10/17/2001	30	16X1	16X1	514	456.000	DIV	COMPOSITIONS AND METHODS FOR CYSTIC FIBROSIS THERAPY
10/040082	10/26/2001	30	16L3	16C1	536	025.300	CON	PROCESS AND DEVICE FOR THE PARALLEL PREPARATION OF AT LEAST 4N OLIGONUCLEOTIDES
10/007451	11/06/2001	30	16X1	16X1	536	025.600		CERTAIN DINUCLEOTIDES AND THEIR USE AS MODULATORS OF MUCOCILIARY CLEARANCE AND CILIARY BEAT FREQUENCY
10/062665	02/05/2002	30	16E1	16X1	556	489.000	DIV	SILICON-CONTAINING COMPOUND AND ORGANIC ELECTROLUMINESCENCE DEVICE USING THE SAME
10/080074	02/21/2002	30	16U2	16X1	536	022.100	REISS	PYRIMIDINE DERIVATIVES AND OLIGONUCLEOTIDES CONTAINING SAME
10/104609	03/22/2002	30	16E1	-	210	653.000	CON	CARBOHYDRATE PURIFICATION USING ULTRAFILTRATION, REVERSE OSMOSIS AND NANOFILTRATION
10/190793	07/09/2002	30	16C1	-	435	006.000	DIV	METHOD FOR QUANTIFYING CHOLESTEROL IN HIGH DENSITY LIPOPROTEIN
10/202212	07/22/2002	30	16C1	-	536	025.420	CON	NUCLEIC ACID-BONDABLE MAGNETIC CARRIER AND METHOD FOR ISOLATING NUCLEIC ACID USING THE SAME
10/231874	08/30/2002	30	16C1	-	536	025.400	CON	SYNTHESIS, DEPROTECTION, ANALYSIS & PURIFICATION OF RNA & RIBOZYMES
10/253981	09/24/2002	30	16C1	_	536	025.340		PREPARATION OF PHOSPHOROTHIOATE OLIGOMERS
								5'-SUBSTITUTED-RIBOFURANOSYL

10/263889	10/02/2002	30	16C1	_	514	115.000	CON	BENZIMIDAZOLES AS ANTIVIRAL AGENTS
10/266708	10/09/2002	30	16C1	-	514	310.000	CON	PHARMACEUTICAL COMPOSITION COMPRISING IFOSFAMIDE AND CARNITINE
10/294331	11/14/2002	30	16C3	-	514	456.000	CON	METHODS AND COMPOSITIONS FOR REGULATION OF 5-ALPHA REDUCTASE ACTIVITY
10/334824	12/31/2002	30	16C1	-	536	085.000	CON	LOW-SUBSTITUTED HYDROXYPROPYL CELLULOSE AND PROCESS FOR PRODUCING SAME
Docket Reg. New Reg. Amended Spl. New Spl. Amended Rejected Counted Not Mailed								

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### Search Results -

Term	Documents
VIRUS	45552
VIRUSES	34157
VIRAL	38256
VIRALS	269
(3 AND (VIRAL OR VIRUS)).USPT.	96
((VIRUS OR VIRAL) AND L3).USPT.	96

## US Patents Full-Text Database US Pre-Grant Publication Full-T

US Pre-Grant Publication Full-Text Database JPO Abstracts Database

**EPO Abstracts Database** 

**Derwent World Patents Index** 

IBM Technical Disclosure Bulletins

Database:

Search:

L5

☐ Recall Text ← Clear

Refine Search

# Search History

DATE: Sunday, August 24, 2003 Printable Copy Create Case

Set Name	Query	<b>Hit Count</b>	Set Name
side by side			result set
DB = USF	PT; PLUR=YES; OP=ADJ	-	
<u>L5</u>	(virus or viral) and 13	96	<u>L5</u>
<u>L4</u>	hev and 13	5	<u>L4</u>
<u>L3</u>	hepatitis and (12 or 11)	102	<u>L3</u>
<u>L2</u>	((514/50)!.CCLS.)	392	<u>L2</u>
<u>L1</u>	((514/49)!.CCLS.)	349	L1

**END OF SEARCH HISTORY** 

Welcome to STN International! Enter x:x

LOGINID: SSSPTA1623HXO

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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Welcome to STN International
NEWS
                  Web Page URLs for STN Seminar Schedule - N. America
NEWS
                  "Ask CAS" for self-help around the clock
NEWS
      3
         Feb 24
                  PCTGEN now available on STN
NEWS
         Feb 24
                 TEMA now available on STN
NEWS 5
         Feb 26
                 NTIS now allows simultaneous left and right truncation
NEWS
         Feb 26
                 PCTFULL now contains images
NEWS
         Mar 04
                 SDI PACKAGE for monthly delivery of multifile SDI results
NEWS
      8
         Mar 24
                 PATDPAFULL now available on STN
NEWS
         Mar 24
                 Additional information for trade-named substances without
                  structures available in REGISTRY
NEWS 10
         Apr 11
                 Display formats in DGENE enhanced
NEWS 11
                 MEDLINE Reload
         Apr 14
NEWS 12
         Apr 17
                  Polymer searching in REGISTRY enhanced
NEWS 13
         AUG 22
                  Indexing from 1927 to 1936 added to records in CA/CAPLUS
NEWS 14
         Apr 21
                 New current-awareness alert (SDI) frequency in
                  WPIDS/WPINDEX/WPIX
NEWS 15
         Apr 28
                 RDISCLOSURE now available on STN
NEWS 16
                 Pharmacokinetic information and systematic chemical names
         May 05
                  added to PHAR
NEWS 17
         May 15
                 MEDLINE file segment of TOXCENTER reloaded
NEWS 18
         May 15
                 Supporter information for ENCOMPPAT and ENCOMPLIT updated
NEWS 19
         May 19
                 Simultaneous left and right truncation added to WSCA
                 RAPRA enhanced with new search field, simultaneous left and
NEWS 20
         May 19
                 right truncation
                 Simultaneous left and right truncation added to CBNB
NEWS 21
         Jun 06
NEWS 22
         Jun 06
                 PASCAL enhanced with additional data
NEWS 23
                 2003 edition of the FSTA Thesaurus is now available
         Jun 20
NEWS 24
         Jun 25
                 HSDB has been reloaded
NEWS 25
                 Data from 1960-1976 added to RDISCLOSURE
         Jul 16
NEWS 26
         Jul 21
                 Identification of STN records implemented
NEWS 27
         Jul 21
                 Polymer class term count added to REGISTRY
NEWS 28
         Jul 22
                 INPADOC: Basic index (/BI) enhanced; Simultaneous Left and
                 Right Truncation available
NEWS 29
         AUG 05
                 New pricing for EUROPATFULL and PCTFULL effective
                 August 1, 2003
                 Field Availability (/FA) field enhanced in BEILSTEIN
NEWS 30
         AUG 13
                 PATDPAFULL: one FREE connect hour, per account, in
NEWS 31
         AUG 15
                 September 2003
                 PCTGEN: one FREE connect hour, per account, in
NEWS 32
         AUG 15
                 September 2003
NEWS 33
         AUG 15
                 RDISCLOSURE: one FREE connect hour, per account, in
                 September 2003
NEWS 34
                 TEMA: one FREE connect hour, per account, in
         AUG 15
                 September 2003
NEWS 35
                 Data available for download as a PDF in RDISCLOSURE
         AUG 18
NEWS 36
         AUG 18
                 Simultaneous left and right truncation added to PASCAL
NEWS 37
         AUG 18
                 FROSTI and KOSMET enhanced with Simultaneous Left and Right
                 Truncation
NEWS 38
        AUG 18
                 Simultaneous left and right truncation added to ANABSTR
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NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT

MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),

AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003

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FILE 'HOME' ENTERED AT 17:55:34 ON 24 AUG 2003

=> file registry COST IN U.S. DOLLARS

SINCE FILE TOTAL

SESSION ENTRY

0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 17:55:46 ON 24 AUG 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 22 AUG 2003 HIGHEST RN 571902-82-4 DICTIONARY FILE UPDATES: 22 AUG 2003 HIGHEST RN 571902-82-4

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

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Crossover limits have been increased. See HELP CROSSOVER for details.

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Uploading pyrknowles.str

L1STRUCTURE UPLOADED

=> s 11 sss sam SAMPLE SEARCH INITIATED 17:56:23 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 6 TO ITERATE

6 ITERATIONS 100.0% PROCESSED

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\* BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 6 TO 266 PROJECTED ANSWERS:

0 TO

0

L2

0 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 17:56:43 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 139 TO ITERATE

100.0% PROCESSED

139 ITERATIONS

SEARCH TIME: 00.00.01

4 ANSWERS

L3

4 SEA SSS FUL L1

=> d scan

L3 4 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN Uridine, 5-methyl-2'-C-methyl- (9CI)

MF C11 H16 N2 O6

Absolute stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):3

L3 4 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN Uridine, 5-fluoro-2'-C-methyl- (8CI)

MF C10 H13 F N2 O6

Absolute stereochemistry.

L3 4 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN Uridine, 2'-C-methyl- (8CI, 9CI)

MF C10 H14 N2 O6

Absolute stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L3 4 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN 2,4(1H,3H)-Pyrimidinedione, 1-(2-C-methyl-.beta.-D-arabinofuranosyl)-(9CI)

MF C10 H14 N2 O6

Absolute stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

ALL ANSWERS HAVE BEEN SCANNED

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 148.55 148.76

FULL ESTIMATED COST

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FILE COVERS 1907 - 24 Aug 2003 VOL 139 ISS 9 FILE LAST UPDATED: 22 Aug 2003 (20030822/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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FILE 'REGISTRY' ENTERED AT 17:55:46 ON 24 AUG 2003

STRUCTURE UPLOADED

L2 0 S L1 SSS SAM L3 4 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 17:57:10 ON 24 AUG 2003

=> s 13

L1

L4 27 L3

=> s 14 and hepatitis

39204 HEPATITIS

L5 2 L4 AND HEPATITIS

=> s 14 and HCV

6784 HCV

17 HCVS

6788 HCV

(HCV OR HCVS)

L6 2 L4 AND HCV

=> s 14 and (virus or viral)

286545 VIRUS

61882 VIRUSES

296910 VIRUS

(VIRUS OR VIRUSES)

122754 VIRAL

7 VIRALS

122760 VIRAL

(VIRAL OR VIRALS)

L7 6 L4 AND (VIRUS OR VIRAL)

=> d 1-2 15

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:555629 CAPLUS

DN 137:125359

TI Preparation of nucleoside derivatives as inhibitors of RNA-dependent RNA viral polymerase

IN Carroll, Steven S.; Lafemina, Robert L.; Hall, Dawn L.; Himmelberger, Amy L.; Kuo, Lawrence C.; Maccoss, Malcolm; Olsen, David B.; Rutkowski, Carrie A.; Tomassini, Joanne E.; An, Haoyun; Bhat, Balkrishen; Bhat, Neelima; Cook, Phillip Dan; Eldrup, Anne B.; Guinosso, Charles J.; Prhavc, Marija; Prakash, Thazha P.

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Merck & Co., Inc., USA; Isis Pharmaceuticals, Inc.
PA
so
     PCT Int. Appl., 235 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 2
                                              APPLICATION NO. DATE
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                                             WO 2002-US1531
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                                             US 2002-52318 20020118
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     US 2002147160
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PRAI US 2001-263313P
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                         Ρ
                              20010406
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     US 2001-299320P
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     US 2001-344528P
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                              20011025
os
     MARPAT 137:125359
     ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
L5
     2001:868467 CAPLUS
AN
DN
     136:6296
     Preparation of antiviral nucleosides and methods for treating
TI
     hepatitis C virus
     Sommadossi, Jean-Pierre; Lacolla, Paulo
IN
     Novirio Pharmaceuticals Limited, Cayman I.; Universita degli Studi di
PA
     Cagliari
     PCT Int. Appl., 296 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
                      KIND DATE
                                              APPLICATION NO. DATE
     PATENT NO.
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     WO 2001090121 A2
                              20011129
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PΙ
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     WO 2001090121
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          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
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     WO 2001-US16671
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(FILE 'HOME' ENTERED AT 17:55:34 ON 24 AUG 2003)
      FILE 'REGISTRY' ENTERED AT 17:55:46 ON 24 AUG 2003
                   STRUCTURE UPLOADED
L1
                 0 S L1 SSS SAM
L2
                 4 S L1 SSS FULL
L3
      FILE 'CAPLUS' ENTERED AT 17:57:10 ON 24 AUG 2003
                27 S L3
L4
                 2 S L4 AND HEPATITIS
L5
                 2 S L4 AND HCV
L6
                 6 S L4 AND (VIRUS OR VIRAL)
L7
=> d kwic ibib 1-2 16
      ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
L6
      . . prodrugs are provided, and particularly contemplated methods of
AB
      use include use as antiviral agents, and esp. as antiviral agents against
                                                  565450-97-7
      20724-73-6 31448-54-1 119410-84-3
IT
                                                         565451-01-6
                                                                           565451-02-7
      565450-98-8 565450-99-9 565451-00-5
      565451-03-8 565451-04-9 565451-05-0
                                                          565451-06-1
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      565451-08-3 565451-09-4 565451-10-7
                                                          565451-11-8
      RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
       (Biological study); USES (Uses)
          (prepn. of sugar modified nucleosides as antiviral agents)
                               2003:591195 CAPLUS
ACCESSION NUMBER:
                               139:133789
DOCUMENT NUMBER:
                               Preparation of sugar modified nucleosides as antiviral
TITLE:
                               agents
                               Hong, Zhi; An, Haoyun; Ding, Yili; Girardet, Jean-luc;
INVENTOR (S):
                               Zhong, Weidong
                               Ribapharm Inc., USA
PATENT ASSIGNEE(S):
                               PCT Int. Appl., 33 pp.
SOURCE:
                               CODEN: PIXXD2
                               Patent
DOCUMENT TYPE:
                               English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                                    APPLICATION NO. DATE
      PATENT NO.
                      KIND DATE
                                                     _____
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                                                    WO 2002-US31556 20021002
                           A2 20030731
       WO 2003062255
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                NE, SN, TD, TG
                                                  US 2002-350296P P 20020117
 PRIORITY APPLN. INFO.:
                                                  US 2002-391800P P 20020626
       ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
 L6
          . . are useful for the treatment of RNA-dependent RNA viral
 AB
```

ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS ON STN

. . are useful for the treatment of RNA-dependent RNA viral infection. They are particularly useful as inhibitors of hepatitis C virus (HCV) NS5B polymerase, as inhibitors of HCV replication, and/or for the treatment of hepatitis C infection. The invention also describes pharmaceutical compns. contg. such nucleoside

```
RNA-dependent RNA viral infection, in particular HCV infection.
    Also disclosed are methods of inhibiting RNA-dependent RNA polymerase,
    inhibiting RNA-dependent RNA viral replication, and/or treating
    RNA-dependent RNA viral. . . of the present invention. Thus,
    4-amino-1-(2-C-methyl-.beta.-D-ribofuranosyl)-1H-pyrazolo[3,4-d]pyrimidine
    was prepd. as inhibitors of RNA-dependent RNA viral polymerase.
    Representative compds. tested in the HCV NS5B polymerase assay
    exhibited IC's less than 100 .mu.M. The compds. of the present invention
    were also evaluated for their ability to affect the replication of
    Hepatitis C Virus RNA in cultured hepatoma (HuH-7) cells contg. a
     sub-genomic HCV Replicon.
                                                     2004-07-1P
                                                                  2140-71-8P
                            606-58-6P
                                        961-07-9P
                147-94-4P
IT
     86-01-1P
                                                          3258-05-7P
                                             2946-39-6P
                  2504-55-4P
                               2564-35-4P
     2140-79-6P
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compds. alone or in combination with other agents active against

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137:125359
DOCUMENT NUMBER:
                              Preparation of nucleoside derivatives as inhibitors of
TITLE:
                              RNA-dependent RNA viral polymerase
                              Carroll, Steven S.; Lafemina, Robert L.; Hall, Dawn
INVENTOR(S):
                              L.; Himmelberger, Amy L.; Kuo, Lawrence C.; Maccoss,
                              Malcolm; Olsen, David B.; Rutkowski, Carrie A.;
                               Tomassini, Joanne E.; An, Haoyun; Bhat, Balkrishen;
                              Bhat, Neelima; Cook, Phillip Dan; Eldrup, Anne B.;
                              Guinosso, Charles J.; Prhavc, Marija; Prakash, Thazha
                               Merck & Co., Inc., USA; Isis Pharmaceuticals, Inc.
PATENT ASSIGNEE(S):
                               PCT Int. Appl., 235 pp.
SOURCE:
                               CODEN: PIXXD2
DOCUMENT TYPE:
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LANGUAGE:
FAMILY ACC. NUM. COUNT:
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2002:555629 CAPLUS

ACCESSION NUMBER:

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (prepn. of sugar modified nucleosides as antiviral agents) 2003:591195 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 139:133789 Preparation of sugar modified nucleosides as antiviral TITLE: agents Hong, Zhi; An, Haoyun; Ding, Yili; Girardet, Jean-luc; INVENTOR(S): Zhong, Weidong Ribapharm Inc., USA PATENT ASSIGNEE(S): PCT Int. Appl., 33 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent English LANGUAGE: FAMILY ACC. NUM. COUNT: 4 PATENT INFORMATION: APPLICATION NO. DATE KIND DATE PATENT NO. \_\_\_\_\_ \_\_\_\_\_ WO 2003062255 A2 20030731 WO 2002-US31556 20021002 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2002-350296P P 20020117 PRIORITY APPLN. INFO.: US 2002-391800P P 20020626 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN L7 Preparation of nucleoside derivatives as inhibitors of RNA-dependent RNA ΤI viral polymerase . . CF3; R5 and R6 are independently H, hydroxymethyl, Me, AB fluoromethyl; and certain derivs. thereof which are inhibitors of RNA-dependent RNA viral polymerase. These compds. are inhibitors of RNA-dependent RNA viral replication and are useful for the treatment of RNA-dependent RNA viral infection. They are particularly useful as inhibitors of hepatitis C virus (HCV) NS5B polymerase, as inhibitors of HCV replication, and/or for the treatment of hepatitis C infection. The invention also describes pharmaceutical compns. contg. such nucleoside compds. alone or in combination with other agents active against RNA-dependent RNA viral infection, in particular HCV infection. Also disclosed are methods of inhibiting RNA-dependent RNA polymerase, inhibiting RNA-dependent RNA viral replication, and/or treating RNA-dependent RNA viral infection with the nucleoside compds. of the present invention. Thus, 4-amino-1-(2-C-methyl-.beta.-Dribofuranosyl)-1H-pyrazolo[3,4-d]pyrimidine was prepd. as inhibitors of RNA-dependent RNA viral polymerase. Representative compds. tested in the HCV NS5B polymerase assay exhibited IC's less than 100 .mu.M. The compds. of the present invention were also evaluated for their ability to affect the replication of Hepatitis C Virus RNA in cultured hepatoma (HuH-7) cells contg. a sub-genomic HCV Replicon.

IT Antiviral agents
Cytotoxicity
Fever and Hyperthermia
Hepatitis C virus
Human
Infection

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(prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
       viral polymerase)
    RNA formation
IT
        (replication; prepn. of nucleoside derivs. as inhibitors of
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     Infection
IT
        (viral; prepn. of nucleoside derivs. as inhibitors of
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     RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN
     (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
     PREP (Preparation); USES (Uses)
        (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
        viral polymerase)
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     preparation); PREP (Preparation); RACT (Reactant or reagent)
         (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
        viral polymerase)
IT
     160526-82-9P
     RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
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(Preparation)
         (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
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                 872-50-4, 1-Methyl-2-pyrrolidinone, uses
IT
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         viral polymerase)
     60-24-2, 2-Mercaptoethanol 69-33-0, Tubercidin acid, reactions 524-38-9, N-Hydroxyphthalimide
                                                                   124-07-2, Octanoic
IT
                                                                  937-14-4,
     3-Chloroperbenzoic acid 1618-36-6 2096-10-8, 2-Aminoadenosine
     2380-63-4, 1H-Pyrazolo[3,4-d]pyrimidin-4-amine
                                                                3680-69-1 7057-33-2,
                            15397-12-3 18422-43-0 19393-83-0 40635-67-4,
     3'-Deoxycytidine
      .alpha.-Acetoxyisobutyryl bromide 56039-06-6 68703-51-5 70384-51-9
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      9012-90-2, DNA polymerase
IT
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (.alpha., .beta., and .gamma. human; prepn. of nucleoside derivs. as
         inhibitors of RNA-dependent human RNA viral polymerase)
                              2002:555629 CAPLUS
ACCESSION NUMBER:
                              137:125359
DOCUMENT NUMBER:
                              Preparation of nucleoside derivatives as inhibitors of
TITLE:
                              RNA-dependent RNA viral polymerase
                              Carroll, Steven S.; Lafemina, Robert L.; Hall, Dawn
INVENTOR(S):
                              L.; Himmelberger, Amy L.; Kuo, Lawrence C.; Maccoss,
                              Malcolm; Olsen, David B.; Rutkowski, Carrie A.;
                              Tomassini, Joanne E.; An, Haoyun; Bhat, Balkrishen;
                              Bhat, Neelima; Cook, Phillip Dan; Eldrup, Anne B.;
                              Guinosso, Charles J.; Prhavc, Marija; Prakash, Thazha
                              Merck & Co., Inc., USA; Isis Pharmaceuticals, Inc.
PATENT ASSIGNEE(S):
                              PCT Int. Appl., 235 pp.
SOURCE:
                              CODEN: PIXXD2
DOCUMENT TYPE:
                              Patent
                              English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                                   APPLICATION NO. DATE
                        KIND DATE
      PATENT NO.
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                                                  WO 2002-US1531 20020118
                          A2 20020725
      WO 2002057425
           W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                                                        20020118
                          A1 20021010
                                                   US 2002-52318
      US 2002147160
                                                US 2001-263313P P 20010122
PRIORITY APPLN. INFO.:
                                                US 2001-282069P P 20010406
US 2001-299320P P 20010619
                                                US 2001-344528P P 20011025
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OTHER SOURCE(S): MARPAT 137:125359

```
ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN
1.7
     Antiviral agents
TΥ
     Bovine diarrhea virus
     Cytotoxicity
     Drug bioavailability
     Flavivirus
     Pestivirus
         (nucleoside derivs. for treating flaviviruses and pestiviruses)
                                                            69123-98-4,
                                 20724-73-6 31448-54-1
                  16848-12-7
     15397-12-3
IT
                                         374750-32-0
                          374750-30-8
     FIAU 119410-84-3
     RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological
     activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
         (nucleoside derivs. for treating flaviviruses and pestiviruses)
                           2001:886155 CAPLUS
ACCESSION NUMBER:
                           136:590
DOCUMENT NUMBER:
                           Methods and compositions using modified nucleosides
TITLE:
                           for treating flaviviruses and pestiviruses
                            Sommadossi, Jean-Pierre; Lacolla, Paolo
INVENTOR(S):
                           Novirio Pharmaceuticals Limited, Cayman I.; Universita
PATENT ASSIGNEE(S):
                           Degli Studi Di Cagliari
                            PCT Int. Appl., 302 pp.
SOURCE:
                            CODEN: PIXXD2
                            Patent
DOCUMENT TYPE:
                            English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                               APPLICATION NO. DATE
                       KIND DATE
      PATENT NO.
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                                               WO 2001-US16687 20010523
                             20011206
      WO 2001092282
                       A2
                        A3 20020502
      WO 2001092282
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
               CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
              RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                               EP 2001-952131 20010523
                         A2
                               20030326
      EP 1294735
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
               IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                                US 2001-863816
                                                                   20010523
                        A1 20030327
      US 2003060400
                                                NO 2002-5600
                                                                   20021121
                               20030117
      NO 2002005600
                         Α
                                             US 2000-207674P P
                                                                   20000526
PRIORITY APPLN. INFO.:
                                             US 2001-283276P P
                                                                   20010411
                                             WO 2001-US16687 W 20010523
                            MARPAT 136:590
OTHER SOURCE(S):
      ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN
L7
      Preparation of antiviral nucleosides and methods for treating hepatitis C
ΤI
      virus
IT
      Hepatitis
          (C; prepn. of antiviral nucleosides and methods for treating hepatitis
         C virus)
 IT
      Antiviral agents
      Bone marrow
      Drug bioavailability
      Mitochondria
      Toxicity
          (prepn. of antiviral nucleosides and methods for treating hepatitis C
         virus)
      Nucleosides, preparation
 IT
```

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of antiviral nucleosides and methods for treating hepatitis C virus) 36791-04-5, Ribavirin IT RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (prepn. of antiviral nucleosides and methods for treating hepatitis C virus) 15397-12-3P 16848-12-7P 20724-73-6P 31448-54-1P IT 34441-68-4P 38946-83-7P 38946-84-8P 54401-19-3P 69123-98-4P 119410-84-3P 125911-76-4P 374750-27-3P 374750-28-4P 374750-29-5P 374750-30-8P 374750-31-9P 374750-32-0P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of antiviral nucleosides and methods for treating hepatitis C virus) 2001:868467 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 136:6296 Preparation of antiviral nucleosides and methods for TITLE: treating hepatitis C virus Sommadossi, Jean-Pierre; Lacolla, Paulo INVENTOR(S): Novirio Pharmaceuticals Limited, Cayman I.; Universita PATENT ASSIGNEE(S): degli Studi di Cagliari PCT Int. Appl., 296 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent English LANGUAGE: FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: APPLICATION NO. DATE KIND DATE PATENT NO. -----\_\_\_\_\_ WO 2001-US16671 20010523 WO 2001090121 A2 20011129 A3 20020502 WO 2001090121 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, CO, CR, CO, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG A5 20011203 AU 2001-74906 20010523 AU 2001074906 US 2001-864078 20010523 20030313 US 2003050229 A1 20030319 EP 2001-941564 20010523 A2 EP 1292603 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR 20010523 A 20030624 BR 2001-11127 BR 2001011127 NO 2002-5627 20021122 20030106 NO 2002005627 Α US 2000-206585P P 20000523 PRIORITY APPLN. INFO.: WO 2001-US16671 W 20010523 MARPAT 136:6296 OTHER SOURCE(S): ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN . . R4 = H) (V). I (R1 = NH2, R2 = R4 = H, R3 = Me) (VI) inhibited AB

L7 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS ON STN

AB . . . R4 = H) (V). I (R1 = NH2, R2 = R4 = H, R3 = Me) (VI) inhibited herpes simplex virus (HSV-1 and HSV-2) in vitro with a min. inhibitory concn. of 10 .mu.g/mL. Powder and capsule formulations were prepd. from. . .

119410-83-2P 119410-84-3P 119410-85-4P 115494-63-8P TT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation) (prepn. of, as virucide)

ACCESSION NUMBER:

1989:115271 CAPLUS

DOCUMENT NUMBER:

110:115271

TITLE:

Preparation of 2'-deoxy-2'(S)-alkylpyrimidine

nucleosides as antiviral agents

INVENTOR(S):

Ueda, Toru; Matsuda, Akira; Takenuki, Kenji; Machida,

Haruhiko

PATENT ASSIGNEE(S):

Yamasa Shoyu Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

APPLICATION NO. DATE KIND DATE PATENT NO. ----------JP 63215694 A2 19880908 JP 06099467 B4 19941207 JP 1987-49540 19870304

JP 1987-49540

19870304

PRIORITY APPLN. INFO.: OTHER SOURCE(S):

MARPAT 110:115271

ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN L7

. . . an inhibiting concn.50 = 15 .mu.g/mL. None of the compds. showed AB antiviral activity against herpes simplex type 1 or 2 virus at

100 .mu.g/mL.

116918-57-1P 116918-61-7P 116918-64-0P 114262-49-6P IT

116918-66-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

ACCESSION NUMBER:

1988:570788 CAPLUS

DOCUMENT NUMBER:

TITLE:

109:170788

Nucleosides and nucleotides. LXXXI. Alkyl addition reaction of pyrimidine 2'-ketonucleosides: synthesis

of 2'-branched-chain sugar pyrimidine nucleosides Matsuda, Akira; Itoh, Hiroko; Takenuki, Kenji; Sasaki,

AUTHOR (S):

Takuma; Ueda, Tohru

CORPORATE SOURCE:

Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan

Chemical & Pharmaceutical Bulletin (1988), 36(3),

SOURCE: 945-53

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 109:170788

Uploading pyrknowles.str

L8 STRUCTURE UPLOADED

=> file registry

COST IN U.S. DOLLARS

SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST 42.09 190.85

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE -3.26 -3.26

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 22 AUG 2003 HIGHEST RN 571902-82-4 DICTIONARY FILE UPDATES: 22 AUG 2003 HIGHEST RN 571902-82-4

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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100.0% PROCESSED 3 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 3 TO 163

PROJECTED ITERATIONS: 5 TO 100 PROJECTED ANSWERS: 0 TO (

L9 0 SEA SSS SAM L8

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100.0% PROCESSED 59 ITERATIONS 5 ANSWERS SEARCH TIME: 00.00.01

L10 5 SEA SSS FUL L8

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SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
148.15 339.00

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE ENTRY

TOTAL SESSION

CA SUBSCRIBER PRICE

0.00 -3.26

FILE 'CAPLUS' ENTERED AT 18:19:57 ON 24 AUG 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 24 Aug 2003 VOL 139 ISS 9 FILE LAST UPDATED: 22 Aug 2003 (20030822/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 110

L11

12 L10

=> s l11 and hepatitis 39204 HEPATITIS

L12 2 L11 AND HEPATITIS

=> s l11 and (virus or viral)

286545 VIRUS

61882 VIRUSES

296910 VIRUS

(VIRUS OR VIRUSES)

122754 VIRAL

7 VIRALS

122760 VIRAL

(VIRAL OR VIRALS)

L13

5 L11 AND (VIRUS OR VIRAL)

=> s lll and HCV

6784 HCV

17 HCVS

6788 HCV

(HCV OR HCVS)

L14

2 L11 AND HCV

=> d kwic ibib 1-2 112

L12 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN

. . viral replication and are useful for the treatment of
RNA-dependent RNA viral infection. They are particularly useful as
inhibitors of hepatitis C virus (HCV) NS5B polymerase, as
inhibitors of HCV replication, and/or for the treatment of
hepatitis C infection. The invention also describes
pharmaceutical compns. contg. such nucleoside compds. alone or in
combination with other agents active. . . than 100 .mu.M. The compds.
of the present invention were also evaluated for their ability to affect
the replication of Hepatitis C Virus RNA in cultured hepatoma

```
(HuH-7) cells contg. a sub-genomic HCV Replicon.
     human cytotoxicity nucleoside prepn antiviral hepatitis C;
ST
     cytotoxicity nucleoside prepn antiviral hepatitis C; nucleoside
     prepn inhibitor human RNA polymerase antiviral hepatitis C
IT
     Antiviral agents
     Cytotoxicity
     Fever and Hyperthermia
       Hepatitis C virus
     Human
     Infection
        (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
        viral polymerase)
     9026-28-2, RNA-dependent RNA Polymerase
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (Hepatitis C Virus NS5B; prepn. of nucleoside derivs. as
        inhibitors of RNA-dependent human RNA viral polymerase)
                                                     2004-07-1P
                                                                   2140-71-8P
                147-94-4P
                            606-58-6P
                                       961-07-9P
IT
     86-01-1P
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     2140-79-6P
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     RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN
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(Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA viral polymerase) ACCESSION NUMBER: 2002:555629 CAPLUS 137:125359 DOCUMENT NUMBER: Preparation of nucleoside derivatives as inhibitors of TITLE: RNA-dependent RNA viral polymerase Carroll, Steven S.; Lafemina, Robert L.; Hall, Dawn INVENTOR(S): L.; Himmelberger, Amy L.; Kuo, Lawrence C.; Maccoss, Malcolm; Olsen, David B.; Rutkowski, Carrie A.; Tomassini, Joanne E.; An, Haoyun; Bhat, Balkrishen; Bhat, Neelima; Cook, Phillip Dan; Eldrup, Anne B.; Guinosso, Charles J.; Prhavc, Marija; Prakash, Thazha Merck & Co., Inc., USA; Isis Pharmaceuticals, Inc. PATENT ASSIGNEE(S): PCT Int. Appl., 235 pp. SOURCE: CODEN: PIXXD2 Patent DOCUMENT TYPE: English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: APPLICATION NO. DATE KIND DATE PATENT NO. \_\_\_\_\_ ----2002057425 A2 20020725 WO 2002-US1531 20020118

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG WO 2002-US1531 20020118 A2 20020725 WO 2002057425 US 2002-52318 20020118 US 2002147160 A1 20021010 US 2001-263313P P 20010122 PRIORITY APPLN. INFO.: US 2001-282069P P 20010406 US 2001-299320P P 20010619 US 2001-344528P P 20011025 MARPAT 137:125359 OTHER SOURCE(S): L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN Preparation of antiviral nucleosides and methods for treating TΙ hepatitis C virus A method and compn. for treating a host infected with hepatitis AΒ C comprising administering an effective hepatitis C treatment amt. of a described 1'-, 2'- or 3'-modified nucleosides I, wherein: R1-R3 and R are independently H,. IT Hepatitis (C; prepn. of antiviral nucleosides and methods for treating hepatitis C virus) Antiviral agents TΤ Bone marrow Drug bioavailability Mitochondria Toxicity (prepn. of antiviral nucleosides and methods for treating hepatitis C virus) Nucleosides, preparation IT RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

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                             2001:868467 CAPLUS
ACCESSION NUMBER:
                               136:6296
DOCUMENT NUMBER:
                               Preparation of antiviral nucleosides and methods for
TITLE:
                                treating hepatitis C virus
                                Sommadossi, Jean-Pierre; Lacolla, Paulo
INVENTOR(S):
                              Novirio Pharmaceuticals Limited, Cayman I.; Universita
PATENT ASSIGNEE(S):
                               degli Studi di Cagliari
                                PCT Int. Appl., 296 pp.
SOURCE:
                                 CODEN: PIXXD2
                                 Patent
DOCUMENT TYPE:
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FAMILY ACC. NUM. COUNT: 1
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2001074906 A5 20011203 AU 2001-74906 20010523

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US 2003050229 A1 20030313 US 2001-864078
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               2 S L11 AND HCV
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L14 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
     . . . prodrugs are provided, and particularly contemplated methods of
AB
     use include use as antiviral agents, and esp. as antiviral agents against
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                                119410-84-3
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      (Biological study); USES (Uses)
         (prepn. of sugar modified nucleosides as antiviral agents)
ACCESSION NUMBER:
                          2003:591195 CAPLUS
                           139:133789
DOCUMENT NUMBER:
                           Preparation of sugar modified nucleosides as antiviral
TITLE:
                           agents
                           Hong, Zhi; An, Haoyun; Ding, Yili; Girardet, Jean-luc;
INVENTOR(S):
                           Zhong, Weidong
                           Ribapharm Inc., USA
PATENT ASSIGNEE(S):
                           PCT Int. Appl., 33 pp.
SOURCE:
                           CODEN: PIXXD2
                           Patent
DOCUMENT TYPE:
                           English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
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              NE, SN, TD, TG
                                           US 2002-350296P P 20020117
PRIORITY APPLN. INFO.:
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L14 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
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. . . are useful for the treatment of RNA-dependent RNA viral

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They are particularly useful as inhibitors of hepatitis C
infection.
virus (HCV) NS5B polymerase, as inhibitors of HCV
replication, and/or for the treatment of hepatitis C infection.
invention also describes pharmaceutical compns. contg. such nucleoside
compds. alone or in combination with other agents active against
RNA-dependent RNA viral infection, in particular HCV infection.
Also disclosed are methods of inhibiting RNA-dependent RNA polymerase,
inhibiting RNA-dependent RNA viral replication, and/or treating
RNA-dependent RNA viral. . . of the present invention. Thus,
4-amino-1-(2-C-methyl-.beta.-D-ribofuranosyl)-1H-pyrazolo[3,4-d]pyrimidine
was prepd. as inhibitors of RNA-dependent RNA viral polymerase.
Representative compds. tested in the HCV NS5B polymerase assay
exhibited IC's less than 100 .mu.M. The compds. of the present invention
were also evaluated for their ability to affect the replication of
Hepatitis C Virus RNA in cultured hepatoma (HuH-7) cells contg. a
sub-genomic HCV Replicon.
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RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN
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IT

(Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA viral polymerase)

ACCESSION NUMBER:

2002:555629 CAPLUS

DOCUMENT NUMBER: TITLE:

137:125359
Preparation of nucleoside derivatives as inhibitors of

RNA-dependent RNA viral polymerase

INVENTOR (S):

Carroll, Steven S.; Lafemina, Robert L.; Hall, Dawn L.; Himmelberger, Amy L.; Kuo, Lawrence C.; Maccoss, Malcolm; Olsen, David B.; Rutkowski, Carrie A.; Tomassini, Joanne E.; An, Haoyun; Bhat, Balkrishen; Bhat, Neelima; Cook, Phillip Dan; Eldrup, Anne B.; Guinosso, Charles J.; Prhavc, Marija; Prakash, Thazha

Р.

PATENT ASSIGNEE(S):

Merck & Co., Inc., USA; Isis Pharmaceuticals, Inc.

SOURCE:

PCT Int. Appl., 235 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

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KIND DATE
                                                                                             APPLICATION NO. DATE
          PATENT NO.
                                                                                              ______
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                  2002057425 A2 20020725 WO 2002-US1531 20020118

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                                                                           WO 2002-US1531
                                                                                                                                    20020118
                                              A2 20020725
          WO 2002057425
                                                                                             US 2002-52318 20020118
          US 2002147160
                                               A1 20021010
                                                                                        US 2001-263313P P 20010122
PRIORITY APPLN. INFO.:
                                                                                        US 2001-282069P P 20010406
                                                                                        US 2001-299320P P 20010619
                                                                                        US 2001-344528P P 20011025
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OTHER SOURCE(S):

MARPAT 137:125359

=> remove dup
DUP IS NOT VALID HERE
The DELETE command is used to remove various items stored by the
system.

To delete a saved query, saved answer set, saved L-number list, SDI request, batch request, mailing list, or user-defined cluster, format, or search field, enter the name. The name may include? for left, right, or simultaneous left and right truncation.

#### Examples:

```
- delete query names starting with BIO
DELETE BIO?/Q
                      - delete answer set names ending with DRUG
DELETE ?DRUG/A
                      - delete L-number lists containing ELEC
DELETE ?ELEC?/L
                      - delete SDI request
DELETE ANTICOAG/S
                      - delete batch request
DELETE ENZYME/B
DELETE .MYCLUSTER
                      - delete user-defined cluster
DELETE .MYFORMAT
                      - delete user-defined display format
                      - delete user-defined search field
DELETE .MYFIELD
DELETE NAMELIST MYLIST - delete mailing list
```

To delete an ordered document or an offline print, enter its number.

#### Examples:

DELETE P123001C - delete print request
DELETE D134002C - delete document order request

To delete an individual L-number or range of L-numbers, enter the L-number or L-number range. You may also enter DELETE LAST followed by a number, n, to delete the last n L-numbers. RENUMBER or NORENUMBER may also be explicitly specified to override the value of SET RENUMBER.

#### Examples:

DELETE L3-L6 - delete a single L-number

DELETE LAST 4 - delete the last 4 L-numbers

DELETE L33- - delete L33 and any higher L-number

DELETE -L55 - delete L55 and any lower L-number

DELETE L2-L6 RENUMBER - delete a range of L-numbers and renumber remaining L-numbers

DELETE RENUMBER - renumber L-numbers after deletion of intermediate L-numbers

Entire sets of saved items, SDI requests, batch requests, user-defined items, or E-numbers can be deleted.

#### Examples:

DELETE SAVED/Q - delete all saved queries

DELETE SAVED/L - delete all saved L-number lists

DELETE SAVED - delete all saved L-number lists

DELETE SAVED/S - delete all saved queries, answer sets, and L-number lists

DELETE SAVED/S - delete all SDI requests

DELETE SAVED/B - delete all batch requests

DELETE CLUSTER - delete all user-defined clusters

DELETE FORMAT - delete all user-defined display formats

DELETE FIELD - delete all user-defined search fields

DELETE SELECT - delete all E-numbers

DELETE HISTORY - delete all L-numbers and restart the session at L1

To delete an entire multifile SDI request, enter DELETE and the name of the request. To delete a component from the multifile SDI, enter DELETE and the name of the component.

#### => d his

(FILE 'HOME' ENTERED AT 17:55:34 ON 24 AUG 2003)

FILE 'REGISTRY' ENTERED AT 17:55:46 ON 24 AUG 2003 Ь1 STRUCTURE UPLOADED 0 S L1 SSS SAM L2L34 S L1 SSS FULL FILE 'CAPLUS' ENTERED AT 17:57:10 ON 24 AUG 2003 L427 S L3  $L_5$ 2 S L4 AND HEPATITIS L6 2 S L4 AND HCV L7 6 S L4 AND (VIRUS OR VIRAL)

```
L8
                STRUCTURE UPLOADED
     FILE 'REGISTRY' ENTERED AT 18:19:37 ON 24 AUG 2003
L9
              0 S SSS SAM L8
L10
              5 S SSS FULL L8
     FILE 'CAPLUS' ENTERED AT 18:19:57 ON 24 AUG 2003
L11
             12 S L10
              2 S L11 AND HEPATITIS
L12
              5 S L11 AND (VIRUS OR VIRAL)
L13
L14
              2 S L11 AND HCV
=> delete 113
DELETE L13? (Y)/N:n
=> dup 113
ENTER REMOVE, IDENTIFY, ONLY, OR (?):remove
PROCESSING COMPLETED FOR L13
              5 DUP REMOVE L13 (0 DUPLICATES REMOVED)
=> d kwic ibib 115 1-5
    ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN
ΙT
     Infection
        (viral; prepn. of sugar modified nucleosides as antiviral
        agents)
IT
     20724-73-6
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     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (prepn. of sugar modified nucleosides as antiviral agents)
ACCESSION NUMBER:
                         2003:591195 CAPLUS
DOCUMENT NUMBER:
                         139:133789
TITLE:
                         Preparation of sugar modified nucleosides as antiviral
                         agents
INVENTOR (S):
                        Hong, Zhi; An, Haoyun; Ding, Yili; Girardet, Jean-luc;
                         Zhong, Weidong
PATENT ASSIGNEE(S):
                        Ribapharm Inc., USA
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SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
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                                   APPLICATION NO. DATE
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    WO 2003062255
                 A2 20030731
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          CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
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PRIORITY APPLN. INFO.:
                                US 2002-350296P P 20020117
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L15 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN
      Preparation of nucleoside derivatives as inhibitors of RNA-dependent RNA
      viral polymerase
 AB
              CF3; R5 and R6 are independently H, hydroxymethyl, Me,
      fluoromethyl; and certain derivs. thereof which are inhibitors of
      RNA-dependent RNA viral polymerase. These compds. are
      inhibitors of RNA-dependent RNA viral replication and are useful
      for the treatment of RNA-dependent RNA viral infection. They
      are particularly useful as inhibitors of hepatitis C virus (HCV)
     NS5B polymerase, as inhibitors of HCV replication, and/or for the
      treatment of hepatitis C infection. The invention also describes
     pharmaceutical compns. contg. such nucleoside compds. alone or in
     combination with other agents active against RNA-dependent RNA
     viral infection, in particular HCV infection. Also disclosed are
     methods of inhibiting RNA-dependent RNA polymerase, inhibiting
     RNA-dependent RNA viral replication, and/or treating
     RNA-dependent RNA viral infection with the nucleoside compds. of
     the present invention. Thus, 4-amino-1-(2-C-methyl-.beta.-D-
     ribofuranosyl)-1H-pyrazolo[3,4-d]pyrimidine was prepd. as inhibitors of
     RNA-dependent RNA viral polymerase. Representative compds.
     tested in the HCV NS5B polymerase assay exhibited IC's less than 100
     .mu.M. The compds. of the present invention were also evaluated for their
     ability to affect the replication of Hepatitis C Virus RNA in
     cultured hepatoma (HuH-7) cells contg. a sub-genomic HCV Replicon.
IT
     Antiviral agents
     Cytotoxicity
     Fever and Hyperthermia
     Hepatitis C virus
     Human
     Infection
        (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
        viral polymerase)
IT
     RNA formation
        (replication; prepn. of nucleoside derivs. as inhibitors of
        RNA-dependent human RNA viral polymerase)
IT
     Infection
        (viral; prepn. of nucleoside derivs. as inhibitors of
        RNA-dependent human RNA viral polymerase)
IT
     9026-28-2, RNA-dependent RNA Polymerase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (Hepatitis C Virus NS5B; prepn. of nucleoside derivs. as
        inhibitors of RNA-dependent human RNA viral polymerase)
IT
     9026-93-1, Adenosine deaminase
     RL: CAT (Catalyst use); USES (Uses)
        (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
        viral polymerase)
ΙT
     2140-72-9P, 2'-O-Methylcytidine
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    RL: IMF (Industrial manufacture); PAC (Pharmacological activity); RCT
     (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES
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       viral polymerase)
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RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN
 (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
PREP (Preparation); USES (Uses)
    (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
   viral polymerase)
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      RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN
      (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
      PREP (Preparation); USES (Uses)
         (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
         viral polymerase)
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      90213-73-3P
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     RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic
     preparation); PREP (Preparation); RACT (Reactant or reagent)
         (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
        viral polymerase)
TΤ
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     RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
     (Preparation)
        (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
        viral polymerase)
IT
               872-50-4, 1-Methyl-2-pyrrolidinone, uses
     RL: NUU (Other use, unclassified); USES (Uses)
        (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
        viral polymerase)
IT
     60-24-2, 2-Mercaptoethanol
                                 69-33-0, Tubercidin
                                                       124-07-2, Octanoic
     acid, reactions 524-38-9, N-Hydroxyphthalimide
                                                       937-14-4,
     3-Chloroperbenzoic acid 1618-36-6 2096-10-8, 2-Aminoadenosine
     2380-63-4, 1H-Pyrazolo[3,4-d]pyrimidin-4-amine
                                                     3680-69-1 7057-33-2,
     3'-Deoxycytidine
                      15397-12-3 18422-43-0 19393-83-0 40635-67-4,
     .alpha.-Acetoxyisobutyryl bromide 56039-06-6 68703-51-5
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     RL: RCT (Reactant); RACT (Reactant or reagent)
        (prepn. of nucleoside derivs. as inhibitors of RNA-dependent human RNA
       viral polymerase)
IT
     9012-90-2, DNA polymerase
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (.alpha., .beta., and .gamma. human; prepn. of nucleoside derivs. as
       inhibitors of RNA-dependent human RNA viral polymerase)
ACCESSION NUMBER:
                        2002:555629 CAPLUS
DOCUMENT NUMBER:
                        137:125359
TITLE:
                        Preparation of nucleoside derivatives as inhibitors of
                        RNA-dependent RNA viral polymerase
INVENTOR (S):
                        Carroll, Steven S.; Lafemina, Robert L.; Hall, Dawn
                        L.; Himmelberger, Amy L.; Kuo, Lawrence C.; Maccoss,
                        Malcolm; Olsen, David B.; Rutkowski, Carrie A.;
                        Tomassini, Joanne E.; An, Haoyun; Bhat, Balkrishen;
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444022-20-2P

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DOCUMENT TYPE:
                                 Patent
 LANGUAGE:
                                 English
 FAMILY ACC. NUM. COUNT:
 PATENT INFORMATION:
        PATENT NO.
                           KIND DATE
                                                        APPLICATION NO. DATE
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        WO 2002057425
            2002057425 A2 20020725 WO 2002-US1531 20020118

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 2002147160 A1 20021010 US 2002-52318 20020118
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 PRIORITY APPLN. INFO.:
                                                    US 2001-263313P P 20010122
                                                    US 2001-282069P P 20010406
                                                    US 2001-299320P P 20010619
                                                    US 2001-344528P P 20011025
OTHER SOURCE(S):
                                MARPAT 137:125359
L15 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN
IT
       Antiviral agents
       Bovine diarrhea virus
       Cytotoxicity
       Drug bioavailability
       Flavivirus
       Pestivirus
           (nucleoside derivs. for treating flaviviruses and pestiviruses)
TΤ
       15397-12-3
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      RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological
       activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
          (nucleoside derivs. for treating flaviviruses and pestiviruses)
ACCESSION NUMBER:
                                2001:886155 CAPLUS
DOCUMENT NUMBER:
                                136:590
TITLE:
                                Methods and compositions using modified nucleosides
                                for treating flaviviruses and pestiviruses
INVENTOR (S):
                                Sommadossi, Jean-Pierre; Lacolla, Paolo
PATENT ASSIGNEE(S):
                               Novirio Pharmaceuticals Limited, Cayman I.; Universita
                                Degli Studi Di Cagliari
SOURCE:
                                PCT Int. Appl., 302 pp.
                                CODEN: PIXXD2
DOCUMENT TYPE:
                                Patent
LANGUAGE:
                                English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
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                           KIND DATE
                                                      APPLICATION NO. DATE
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      WO 2001092282
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      WO 2001092282
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                GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
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PATENT ASSIGNEE(S):

SOURCE:

Bhat, Neelima; Cook, Phillip Dan; Eldrup, Anne B.; Guinosso, Charles J.; Prhavc, Marija; Prakash, Thazha

Merck & Co., Inc., USA; Isis Pharmaceuticals, Inc.

PCT Int. Appl., 235 pp.

CODEN: PIXXD2

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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
              RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
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          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
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                                          US 2000-207674P P
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                                          WO 2001-US16687 W 20010523
 OTHER SOURCE(S):
                           MARPAT 136:590
      ANSWER 4 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN
      Preparation of antiviral nucleosides and methods for treating hepatitis C
      virus
 IT
      Hepatitis
         (C; prepn. of antiviral nucleosides and methods for treating hepatitis
         C virus)
 ΙT
      Antiviral agents
      Bone marrow
     Drug bioavailability
      Mitochondria
      Toxicity
         (prepn. of antiviral nucleosides and methods for treating hepatitis C
         virus)
IT
     Nucleosides, preparation
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); IMF (Industrial manufacture); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
      (Preparation); USES (Uses)
         (prepn. of antiviral nucleosides and methods for treating hepatitis C
        virus)
     36791-04-5, Ribavirin
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); BIOL (Biological study)
         (prepn. of antiviral nucleosides and methods for treating hepatitis C
        virus)
IT
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     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); IMF (Industrial manufacture); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (prepn. of antiviral nucleosides and methods for treating hepatitis C
        virus)
ACCESSION NUMBER:
                          2001:868467 CAPLUS
DOCUMENT NUMBER:
                          136:6296
TITLE:
                          Preparation of antiviral nucleosides and methods for
                          treating hepatitis C virus
INVENTOR (S):
                          Sommadossi, Jean-Pierre; Lacolla, Paulo
PATENT ASSIGNEE(S):
                          Novirio Pharmaceuticals Limited, Cayman I.; Universita
                          degli Studi di Cagliari
SOURCE:
                          PCT Int. Appl., 296 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
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PATENT INFORMATION:
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PATENT NO.
                    KIND DATE
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     WO 2001090121 A2 20011129
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                                         NO 2002-5627
                                                          20021122
PRIORITY APPLN. INFO.:
                                       US 2000-206585P P
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                                       WO 2001-US16671 W 20010523
OTHER SOURCE(S):
                        MARPAT 136:6296
L15 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN
     . . an inhibiting concn.50 = 15 .mu.g/mL. None of the compds. showed
     antiviral activity against herpes simplex type 1 or 2 virus at
     100 .mu.g/mL.
     20724-73-6P 115494-60-5P
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     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn., neoplasm inhibiting and virucidal activity of)
                        1988:570788 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        109:170788
TITLE:
                        Nucleosides and nucleotides. LXXXI. Alkyl addition
                        reaction of pyrimidine 2'-ketonucleosides: synthesis
                        of 2'-branched-chain sugar pyrimidine nucleosides
AUTHOR (S):
                        Matsuda, Akira; Itoh, Hiroko; Takenuki, Kenji; Sasaki,
                        Takuma; Ueda, Tohru
CORPORATE SOURCE:
                        Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan
SOURCE:
                        Chemical & Pharmaceutical Bulletin (1988), 36(3),
                        945-53
                        CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE:
                        Journal
LANGUAGE:
                        English
OTHER SOURCE(S):
                        CASREACT 109:170788
=> d 18
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L8 HAS NO ANSWERS

STR

L8

Structure attributes must be viewed using STN Express query preparation.